

What is claimed is:

1. A protein expression vector comprising a secretory nucleotide signal and, in the 3' downstream side thereof, a Tag nucleotide sequence, a cleavable nucleotide sequence and a cloning site into which a nucleotide sequence encoding a target protein can be inserted, in this order.

2. The protein expression vector according to claim 1, wherein a nucleotide sequence encoding a target protein is inserted in the cloning site.

3. The protein expression vector according to claim 1 or 2, wherein the cloning site or the nucleotide sequence encoding the target protein is present successively at the 3' end of the cleavable nucleotide sequence.

4. The protein expression vector according to any one of claims 1 to 3, wherein a nucleotide sequence encoding at least one amino acid is contained as a spacer nucleotide sequence in the 3' downstream side of the secretory signal nucleotide sequence, but in the 5' upstream side of the cleavable nucleotide sequence.

5. The protein expression vector according to claim 4, wherein the spacer nucleotide sequence is a nucleotide sequence encoding at least the amino acid sequence of Leu-Val-His-Gly-Lys-Leu.

SUB  
B9

INS  
C8

6. The protein expression vector according to claim 4 or 5, wherein the spacer nucleotide sequence is composed of at least a cleavable nucleotide sequence.

7. The protein expression vector according to any one of claims 1 to 6, wherein the cleavable nucleotide sequence, when translated into an amino acid sequence, is cleaved by an enzyme at immediate upstream and/or immediate downstream and/or in the middle of said amino acid sequence.

8. The protein expression vector according to claim 7, wherein the cleavable nucleotide sequence is a nucleotide sequence encoding at least the amino acid sequence of Asp-Asp-Asp-Asp-Lys.

9. The protein expression vector according to claim 7 or 8, wherein the enzyme is enterokinase.

10. The protein expression vector according to any one of claims 1 to 9, wherein the secretory signal nucleotide sequence is IgG ( $\kappa$ ) signal or trypsin signal.

11. The protein expression vector according to any one of claims 1 to 10, wherein the Tag nucleotide sequence is polyhistidine.

12. The protein expression vector according to any one of claims 1 to 11 further comprising a nucleotide sequence encoding an antibody recognition epitope.

13. The protein expression vector according to any one of claims 1 to 12, wherein the nucleotide sequence

SUB  
B10

1WS  
C9

SUB  
B11

encoding the target protein is that encoding neurosin.

14. Host cells transformed with the protein expression vector according to any one of claims 1 to 13.

5 15. The host cells according to claim 14 which are animal cells.

16. The host cells according to claim 15, wherein the animal cells are mammalian cells.

17. The host cells according to claim 15, wherein the animal cells are insect cells.

10 18. A process for producing a target protein which comprises using the protein expression vector or the host cells according to any one of claims 1 to 18.

19. A target protein which is obtained by the process according to claim 18.

15 20. A process for producing a recombinant fusion protein comprising an amino acid sequence of a target protein which comprises using the protein expression vector or the host cells according to any one of claims 1 to 18.

20 21. A recombinant fusion protein comprising the amino acid sequence of the target protein obtained by the process according to claim 20.

25 22. A process for producing a target protein which comprises retaining the recombinant fusion protein according to claim 21 with a substance capable of recognizing Tag and/or an epitope in said recombinant

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B15